DOCUMENT RESUME

ED 198 209 UD 021 171

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TITLE Educational Research with the Culturally Different: Problems, Alternatives and Suggestions.
PUB DATE [79]
NOTE 17p.

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Cultural Differences; *Educational Research; Ethnic Groups; Experimental Psychology; *Psychological Studies; *Research Design; *Research Methodology; *Research Problems

ABSTRACT

This paper focuses on theoretical and methodological problems in social psychological research on the culturally different. Major problems in using experimental approaches are discussed: (1) the reactive nature of the experiment; (2) selection bias; (3) experimenter bias; and (4) value and ethical problems. The field experiment and combined field study/participant observation are presented as alternative methods that emphasize the use of sensitive observation and unobtrusive measurements in naturalistic settings. Three suggestions are offered to researchers who intend to study the social and cultural behavior of the culturally different: (1) study behavior where it naturally occurs; (2) acquire knowledge of the culture and language; and (3) conduct more than one study and utilize multiple measurements. (APM)

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Educational Research with the Culturally Different: Problems, Alternatives and Suggestions

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EDUCATIONAL RESEARCH WITH THE CULTURALLY DIFFERENT: PROBLEMS, ALTERNATIVES AND SUGGESTIONS

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Education is an eclectic field. Educational research does not have a methodology of its own, which allows it the flexibility of selecting suitable methodologies from other disciplines to study any given educational problem. The methodology used most often in educational research has been borrowed from psychology, and has undoubtedly affected most people's perceptions of what educational research is and what its methodology should be.

Psychology, on the other hand, has derived its methodology from physical sciences. Experimental psychology has a strenuous insistence and reliance on vigorously controlled methodology. It has made an undeniable stride in proving that psychology can be a science and that human behavior can be studied and understood objectively, at least in its simpler forms under the well-controlled laboratory conditions. However, when we want to study human social behavior which is much harder to isolate from its complicated social-cultural context, it becomes extremely difficult, if not entirely impossible, to control all the extraneous variables. The ultimate blow comes when social psychologists come to the realization that the laboratory setting, and/or the controlling procedure itself becomes the confounding factor. In other words, the <u>studying</u> of social behavior itself changes the nature of that behavior. This is the dilemma of researchers in studying complicated social behavior embedded in the context of various social and cultural settings (Jung, 1971).

The true-experimental method has been the most productive and heavily relied upon method in psychology, which, unfortunately also produces most serious problems when applied to culturally sensitive human social behavior. Those problems probably can be illustrated by a rather well-known comic cartoon. In this cartoon, one rat is commenting to the other rat in a typical Skinner Box which I am sure, is familiar to all of us. This rat said, "Oh boy, I surely have gotten that psychologist conditioned. Every time I push the button, he gives me a Purina Rat Chew." This cartoon is funny because we all know that the psychologists condition the rats, not the other way around, and that rats not only can't talk, they also don't think; they only passively respond to the conditions experimenters manipulate and control. Or do they?

In the well-controlled laboratory, psychologists traditionally manipulate independent variables and control the extraneous variables, while experimental subjects presumably react passively to those manipulations. The human subjects' behaviors under these conditions are assumed to be true reactions to the experimental manipulations and are generalizable to the real world; but are they? The experimenters are to remain detached and objective in order to assure the same experimenter effect across all conditions. However, are they truly objective and detached? Perhaps rats don't think, human beings surely do. In any human social contact, there is a reciprocal interaction between all people involved. As experimenters study their subjects, their subjects also study them, as well as the nature and the setting of the experiment. Thus, this cartoon raised an interesting question: Did the psychologist condition the rat, or did the rat condition the psychologist?

Problems

These are four major and fundamental problems in using experimental

approaches with the culturally different in conducting research:

A. Reactive Nature of the Experiment

When human subjects find themselves being studied in an experiment, they may not react as how they would normally. Riecken (1962) found that subjects tend to try harder, "put their best foot forward" so to speak, when they are in an experiment, knowing that they are being evaluated. Orne (1962) pointed out the "demand characteristics" of the laboratory studies. According to Orne, subjects who agree to participate in the experiment come with a favorable attitude and are highly cooperative to the demands of the experimenters to the point of being blindly obedient. Since they have been contracted to be "guinea pigs," they perceive their prescribed roles as to guess the hidden purpose of the experiment so that they can behave accordingly. Every experiment contains numerous clues, "demand characteristics" as Orne called them, which serve to provide hints to human subjects as what behavior is expected of them. Rosenberg (1969) discussed the evaluation apprehension in human subjects. He demonstrated that subjects actively guess and test their hypotheses concerning the real purpose of the experiment so that they can "appear right" in the experiment.

Human beings interact actively with their environment, they organize information, form hypotheses, and try to psych-out experiments. How can culturally sensitive behavior be studied if one's awareness of being studied changes the nature of the behavior? This is a serious problem to be aware of for all researchers who conduct research with the culturally different populations. Non-reactive methods are needed, such as field studies, participant observation, etc. which will be discussed later.

B. Selection Bias

How are subjects in experiments selected, and who are they? Are those

selected different from those not selected? Are those who give consent to participate in a survey or experiment different from those who refuse to participate? Why do some subjects drop out of studies before their completion? and who are they? How will this dropping out affect the outcomes of the studies and the generalizability of their results? Who are the unreachables in any given study? Can they be reached? Will their absence create problems in certain studies?

All these are pertinent problems for studies dealing with the culturally different. In the traditional laboratory studies, the subjects most commonly used are college sophomore students and white rats, and not necessarily in that order. Perhaps the resulting "psychological facts" are actually more generalizable to other college students and other white rats, but not necessarily to all people. In studies where participants' consent is necessary, those who consent may differ from those who don't on some significant dimensions. Volunteers were found more in need of social approval, more intelligent, with more unconventional personalities and higher needs for achievement (Rosenthal, 1966). Therefore, the results that are based on volunteers' responses may be limited in their generalizability. In ethnic studies, the problems in structuring suitable methodology is further compounded by the difficulty in selecting subjects. Many minorities, because of lack of confidence in dealing with the major culture, may look with suspicion at anyone who wants to study them. Many minorities, unfamiliar with testing settings and testing materials, are hesitant to participate in studies or tend to drop out of studies early. Some of them are further hampered by their inadequate English speaking, reading, and writing skills, which make them shy away from survey and interview studies, unless interviewers speak their own languages and the questionnaires are translated into the languages they know well. Quite frequently, too embarrassed to acknowledge the diffi-

culty they encounter with measurement instruments, they dutifully respond to the questions, guessing along the way, which makes the results ambiguous to interpret. The most serious problem, however, is how to reach the "unreachables" in conducting ethnic studies. Where are they? How many are in isolated U. S. towns and villages? How many are mingled with others and are engulfed in crowded cities? What are they like? What are their needs? We know there are many such "unreachables." But we don't have any statistics, any research data on them, precisely because of their unreachability.

C. Experimenter Bias

Are experimenters really objective and detached? As human beings, don't experimenters have certain value systems which affect their attitudes toward subjects? Is it possible that some researchers, knowing what the research hypothesis predicts, expect the prediction to become a reality?

Rosenthal (1966), with his experiment-within-experiment paradigm, demonstrated the existence of experimenter-bias. Experimenters with different expectations of the outcomes of experiments would actually make those expectations come true, as "self-fulfilling" prophecies (Rosenthal & Rosnow, 1968).

In culturally sensitive areas where attitudes toward different cultures and races tend to be strong and emotionally laden, the attitudes experimenters exhibited toward subjects became significant factors which affect subjects' responses. How can experimenters and interviewers keep their objectivity, not to bias subjects' reactions by subtle expectations and interactions, and at the same time, establish a warm and facilitory relationship with subjects, bears serious considerations for researchers who intend to study the culturally different.

D. Value and Ethical Problem

The first three questions deal with the external validity of the experi-

mental results and raise the question of whether such results are generalizable to social behavior occurred in the natural environment. This last problem concerning value and ethics, relates to a much more general and broad consideration in conducting experimental studies. It deals with questions such as under what conditions are subjects studied? Has the purpose of the study been explained to the subjects? Is deception used? How does the experimenter present him/herself? truthfully or under pretense? What kind of relationship exists between subjects and experimenter?

In true-experimental studies, in order to control extraneous variables, the experimenter is generally detached from subjects. Subjects are looked upon as merely the source of data. Little attempt is made to understand the reason of the subjects' behavior beyond what is prescribed in the experimenter's manual. This again becomes critical in conducting culturally sensitive studies where the meaning of subjects' responses can only be revealed through the understanding of subjects' cultural background and subjects' subjective interpretations of the experimental tasks. Positive rapport has to be established if true responses are expected from the subjects. And familiarity with subjects' culture, value, and social environment is a must in order to make subjects' responses meaningful.

Researchers have to seriously examine the ethical aspect of their research. How can we protect the anonymity and confidentiality of subjects' responses? And how can we convince the subjects that this will be done? How can we eliminate the fear and suspicion they may have toward the study? How can we conduct the study in an honest and trustworthy way in order to foster the belief in them that studies like this are alright? On top of all, we also have to ask ourselves a very important question--Why are they in the experiment? Why do we do the experiment? Are those minorities purely guinea pigs to provide us with data so that

we can have one more paper to publish? I believe that subjects have to benefit directly or indirectly through the results of our studies. The ethical question of how can the results or our studies facilitate the understanding of the cultures of different ethnicities, and improve their socio-economic status or educational attainment in some way, has to be addressed by researchers.

Alternative Methods

All the methods that will be described in this section emphasize the use of sensitive observation and unobtrusive measurements (Webb et al., 1966) in naturalistic settings where behavior to be studied occurs naturally as part of people's daily living. Behavior studied under these conditions is more likely to be free from many of the problems mentioned earlier. Two major approaches will be discussed:

A. Field Experiment

Field experiment follows the experimental tradition, and employs basically the same techniques, such as tight experimental design, random sampling, and counter-balancing, etc. to control extraneous variables. Field experiment may manipulate independent variables and thus is similar to true-experimental method. It also may study existing variables where only partial control or no control is possible, and thus resembles quasi-experimental method. The effects of independent variables are carefully studied on certain measurement dimensions which are dependent variables. Despite all of the above mentioned similarities, field experiment differs from the traditionally used experimental method in that the traditional experimental method studies behavior in the artificial laboratory settings, whereas field experiment turns the "real world" into a laboratory and studies human behavior as it unfolds. Field experiments are much more difficult to design and take much longer time in data collection, therefore, there have

only been relatively few field experiments (Feldman, 1968; Bergsma, 1977).

The field experiment has the decisive advantage over other non-reactive methods which will be discussed below, in that it provides causal-effect inferences concerning human social behavior. Please see Cook and Campbell's (1979) book "Quasi-experimentation: Design and Analysis Issues for Field Settings" for detailed treatment of this kind of methodology.

B. Field Studies and Participant Observation Method

These studies tend to be descriptive-correlational in nature, and are ex post facto in deriving possible inferences concerning cause-and-effect relationships in the naturalistic setting. Comparing to experimental method, a much more wholistic orientation is employed which enables the researcher to be a part of one's studies in order to fully comprehend the meaning of human interaction in its intact cultural context. Sensitive observation is especially crucial to the success of this type of research. The researcher becomes a sensitive research instrument by transcending one's own perspectives and utilizing all available senses to "smell" to "hear" to "see" and to "feel" all that is going on around him/her. Unobtrusive measurements should always be used which may include physical evidences, action or non-action patterns, context traces, archives, artifacts, documents, oral history, formal and informal interactions between people, among others. Video-taping and recording may also be appropriate to record the verbal and non-verbal interactions between people for later content analyses.

These field methods have been mainly employed in sociological and anthropological studies, just as experimental methods have been mainly employed by psychological studies. Perhaps certain social behaviors are so imbedded in their cultural fabric that putting them into narrow pigeon holes and studying

them as separate variables as proposed by experimental methods will lose their meaning and perspectives. Ethnography is one of the field methods whose promise as a suitable method in studying complicated social behavior has only been recognized lately. Ethnographical research is referred to mainly as an anthropological method following the participant observation tradition. Recently, the National Institute of Education has encouraged its use, and many researchers are beginning to use this method and finding that not only is it suitable for culture-related studies, but also for educational research in schools in general.

Ethnography is naturalistic-ecological in its orientation (Wilson, 1977). It believes that human behavior is significantly influence by the setting in which it occurs and therefore, human behavior should be studied in its natural surroundings. To eliminate the artifacts of experiments, phenomenon should be studied naturalistically and unobtrusively. The rest of the major elements in traditional research methodology such as hypothesis formulation and testing, definition of operational categories of observation, development of objective methods of data collection, and utilization of appropriate statistical analyses are still employed in ethnographical method.

Ethnography is based on a qualitative-phenomenological assumption of human nature. While experimental psychology strives toward the natural science model of objectivity, phenomenology stresses the significance of the subjective nature of human experiences. Human behavior cannot be truly understood, according to phenomenologists, without the understanding of the framework within which the subjects interpret their thoughts, feelings, and actions.

> "The traditional empiricist considers himself (as a scientist) to be the primary source of knowledge, and trusts his own senses and logic more than he would trust that of his subjects. The parti-

> cipant observer, on the other hand, considers the interpretations of his subjects to have first importance. . . . By taking the role of his subjects he recreates in his own imagination and experience the thoughts and feelings which are in the minds of those he studied" (Bruyn, 1966, p. 12).

Quantitative researchers are restricted by their perspectives; they risk the chance of selecting limited and arbitrary variables ahead of the experiment, and closing their eyes to other potentially significant variables as the study progresses, presumably for the sake of objectivity. An ethnographer in his/her conquest to understand behavior must find ways to learn its manifested and hidden meanings, must also approach the behavior from the objective outside perspective, and must be prepared to incorporate new evidences in his/her conceptual framework as behavior enfolds and changes in front of him/her. Ethnographic inquiry is a systematic process. It can also be quantitative besides being qualitative. Because of the complexity of the setting, prior planning and understanding are a must. Objectivity can be a problem in ethnographic method ; it requires disciplined objectivity (Wilson, 1977) and can be developed through searching for negative evidences, suggested by Beckner (1958).

Suggestions

There are three major suggestions for those researchers who intend to study the social and cultural behavior of the culturally different.

A. Study Behavior Where It Naturally Occurs

Whether you are sold on ethnographic method or not, whether you prefer field experiment or not, there is a need for us to go out into the field and to study behavior where it occurs. Paper-and-pencil tests provide an indirect indicator of how people might behave. To a degree, paper-and-pencil tests are

artificial, especially when it comes to studying complicated social or cultural behavior. Rather than ask a person what is his attitude toward bilingual education, or devise an instrument to measure this attitude, actual behavior toward bilingual education should be observed directly. Does she send her children to bilingual classes? Does he encourage his children to use both languages? Does she actively assist and support the bilingual policies and activities? If we want to conduct good ethnic studies, let us go to where ethnic minorities are. With the use of sensitive observation and unobtrusive measurements, we will be able to study their behavior directly.

B. Acquire Knowledge of the Culture and People

Social scientists cannot understand human behavior without understanding the framework with which the subjects interpret their thoughts, feelings and actions. We are reminded here of a story where a first grade boy was observed to draw pictures with only black crayon. A group of psychologists started to argue and to diagnose if the boy had depressive moods or other hidden emotional problems until one spychologist said, "Why don't we ask him why he likes to use only black crayon." So they did, and the boy replied, "This is the only crayon I got left."

To know the cultural background of the group we study, to speak their language or at least be able to communicate with them, to understand their perception of the tasks and the experimenter, to find out how to reach the "unreachables," are essential elements in making a research study meaningful.

C. Employ Multi-studies and Multiple Measurements

As we have discussed earlier, research means re-search, search and search again. The knowledge acquired in a given research always starts from some existing information. If the research is worthwhile, it will always trigger further research and be modified by their findings. A single, isolated study

has little to offer. Perhaps it is important for us to construct a series of studies to systematically investigate a central phenomenon.

Multiple measurements are important means to provide us with a fuller picture of whatever we are studying. Using the bilingual attitude study as an example again: Is it sufficient to use the response "Yes, I am for bilingual education" as a true indicator of the person's positive attitude? Can we devise more questions? Can we use other records and behavioral indicators to provide a more valid picture?

Conclusions

In conclusion: there is not one single method which can apply to all educational studies. The appropriateness of each method is dependent upon the nature of the problem, the surrounding setting and the answers needed. However, sensitive observation from researchers is always the most important element in the scientific study, whether human or non-human subjects are studied, whether it deals with culturally sensitive or unsensitive areas. Sensitive observation also involves the ability to use unobtrusive measures (Webb et al., 1966). In this regard, I think a researcher is very much like Sherlock Holmes. We observe and search all kinds of manifested and hidden behavioral indicators and physical artifacts, we use logical inferences and deductive processes in order to fit broken pieces of puzzles into a whole picture. Or as Doyle would say, to answer the question of "Whodunit?" Among educators, research tends to be looked upon as something that is dull, mechanical and restrictive to imagination. I believe that this commonly held image of research is actually the farthest from the truth. The truth is that research is most challenging and exciting--or it is at least as challenging and exciting as Sherlock Holmes detective books. It takes tremendous imagination and ingenuity to design and execute good research. Just as artists capture their impressions of color and shape on canvas, poets capture their sen-

timents and inspirations in poems, researchers in social studies try to capture the essence of human social behavior in the well-designed miniature world of research studies. How to select correct methodology in order to eliminate the experimental artifacts so that one can get closer to the problem one intends to study in this miniature research world poses constant challenges to researchers.

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